REMARKS

The applicants appreciate the Examiner's thorough examination of the application and request reexamination and reconsideration of the application in view of the preceding amendments and the following remarks.

The applicants further appreciate the Examiner's detailed explanation of the rejections in the Response to Arguments section of the present Office Action.

THE REJECTIONS BASED ON 35 USC §112, 2ND PARAGRAPH

The Examiner re-states the same rejection of claims 1-35 as in the previous Office Action, namely, the claims are rejected based on 35 U.S.C. §112, second paragraph as being indefinite. The Examiner states that the recitation of "radome" in claims 1, 19, 34 and 35 is unclear, and that "the preamble language recites a radome however no structure is given to the same other than a fabric material comprising polyester polyarylate fibers in a resin matrix". The Examiner objects to claims 2-18 and 20-33 as dependent on rejected base claims.

In the Response to Arguments section of the pending Final Office Action, the Examiner suggests amending the claims to state "a [r]adome used as an enclosure for an antenna which comprises ...". The applicants thank the Examiner for the suggested amendment. The applicant has amended independent claims 1, 19, 34 and 35 in the spirit of the Examiner's suggestion. See also e.g. applicants' specification at page 6, lines 16-17 regarding radomes.

The applicants also respectfully re-iterate that radomes and their uses are known to those skilled in the art, as enclosures for antennae for example. The applicants' Fig. 1 shows one example of a fabric radome such as an air-supported radome, and examples of radomes are discussed in the applicants' specification at page 6, lines 17-23.

Also, in the Response to Arguments, the Examiner states that the applicants did not respond to the query on the last line of page 2 of the previous Office Action.

The applicants apologize for not addressing this sentence, namely: "[a]dditionally, this would also further Applicant's stance on differences between a rigid and flexible radome." This sentence was not understood to be a query. The applicants fully responded to the paragraph immediately preceding this sentence, which the applicants thought would be included by this statement. Particularly, the applicants responded that increased radome strength and reduced radio frequency transmission losses through the radome are accomplished by the applicants' claimed structure including polyester-polyarylate fibers.

The applicants also addressed the distinction between flexible and rigid radomes in the applicants' Response to the February 8, 2006 Office Action, including the submission of the Declaration of (inventor) Marvin I. Fredberg. When the Examiner issued the next Office Action immediately thereafter, the Examiner stated that "all previously made rejections are now withdrawn in light of Applicant's remarks and accompanying Declaration ...". See page 2 of the Office Action mailed July 17, 2006.

It was the applicants' understanding that all issues in the previous Office Action were addressed. To the extent the applicants may be incorrect, the applicants incorporate herein their previous Response to the February 8, 2006 Office Action regarding rigid and flexible radomes.

Accordingly, in light of the foregoing, the applicants respectfully submit that the claims are not unclear, and request that the Examiner withdraw the rejections of claims 1-35 based on 35 U.S.C. §112, second paragraph.

THE REJECTIONS BASED ON 35 USC §102(b)/103(a)

The Examiner also repeats the same rejection of claims 1-35 under 35 U.S.C. 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. 103(a) as obvious over, U.S. Pat. No. 6,074,722 to *Cuccias* in view of U.S. Pat. No. 5,357,726 to *Effenberger et al.* In the present Final Office Action, however, the Examiner notes that the additional reference (U.S. Pat. No. 6,998,156 to *Howland*) is moot.

In connection with these rejections in view of the cited references the Examiner states in pertinent part:

> With regard to the claim limitation of the composite being "structured to increase the radome strength and reduce radio frequency transmission losses through the radome", it is the position of the Examiner that, it is reasonable to presume that *this property is inherent to the composite of Cuccias/Effenberger et al.* Support for said presumption is found in the use of like materials (i.e. VECTRAN™ fibers encapsulated in a polyurethane resin matrix, and made into a multiply composite having an outer skin layer which both structurally and chemically are similar to the applicant's). The burden is upon Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In addition the presently claimed property of increasing the radome strength and reducing radio frequency transmission losses through the radome, would obviously have been present once the Cuccias/Effenberger et al. product is provided. (With emphasis added.)

The applicants respectfully submit, however, that "inherency" and obviousness are not the same. The applicant submits that before "inherency" can support a rejection, the claimed invention must be obvious over the cited references.

"[A] retrospective view of inherency is not a substitute for some teaching or suggestion which supports the selection and use of the various elements in the particular claimed combination." See e.g. In re Newell, 891 F.2d 899, 13 USPQ 2d 1248, 1250 (Fed. Cir. 1989).

Cuccias teaches utilization of a stronger material for inflatable structures, as well as

protection from damage potentially caused by ultraviolet radiation, including a separate layer to effect protection from ultraviolet rays.

Effenberger et al a structural composite material which includes a water resistant outer layer to prevent cracking, and deleterious effects of cracking on the material used for structures, in one example a radome structure.

Neither *Cuccias* nor *Effenberger et al.* teach anything about facilitating RF transmissions; neither teaches the balance involved between RF transmission and strength.

In In re Newell, quoted above, the Federal Circuit noted the following:

> The motivation to make a specific structure is not abstract, but practical, and is always related to the properties or uses one skilled in the art would expect the structure to have, if made ...
>
> ...In In re Wright we discussed the need, in comparing the differences between the structure and properties taught by the prior art, and those of the applicant's invention, to include consideration of the problem to be solved ...
>
> ...Applying this precedent to Newell's invention, there is no teaching or suggestion in the prior art that the belt drive of Weiss should be applied to the capstan of ANSI type of tape cartridge in the manner done by Newell, in order to achieve the significant advantageous property obtained by Newell.

In this case, neither the nature of the problem to be solved nor the applicants' claimed solution are taught by the cited references. The applicants respectfully submit that there is no teaching or suggestion in the cited references that applying the outer layer for resisting water-induced cracking of *Effenberger et al.* to the material for inflatable structures taught by *Cuccias* would achieve the significant advantageous properties obtained by the applicants' claimed invention.

Moreover, the applicants submit that the Examiner – without benefit of the knowledge gained from applicants' claimed invention – has not provided a basis in fact to support the

proposition that one skilled in the art of radome technology, attempting to solve the problems which were solved by the applicants' claimed invention, would combine these cited references.

Instead, the applicants respectfully submit that the Examiner inadvertently based the rejection of applicants' claims on "inherency" and then supported the combination of the cited references based on a speculative and hypothetical motivation ("to create an end product which has the ability to resist the deleterious effects of liquid water"). The applicants further respectfully submit that such a "motivation" to combine can only be based on the knowledge provided by the applicants' claimed invention of a radome which includes polyester-polyarylate fibers – i.e. hindsight. The law is clear that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention". See e.g. *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988).

CONCLUSION

Accordingly, the applicants respectfully submit that for at least the foregoing reasons, the applicants' claims are in condition for allowance.

Each of Examiner's rejections has been addressed or traversed. Accordingly, it is respectfully requested that the Examiner withdraw the rejection of claims 1-35. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the

undersigned or his associates, collect in Waltham, Massachusetts at (781) 890-5678.

Respectfully submitted,

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